

SHORT COMMUNICATION

The *Rubus* species described by F.W. Schmidt in 1790

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Key words

F.W. Schmidt
Rubus fragaria
Rubus pseudo-idaeus
Rubus sulcatus

Abstract – The identities of *Rubus fragaria* F.W. Schmidt and *R. pseudo-idaeus* F.W. Schmidt was settled and lectotypes were selected. *R. fragaria* is identical with *R. saxatilis* L. and *R. pseudo-idaeus* with *R. sulcatus* Vest. Because the use of *R. pseudo-idaeus* as the correct name of the species would cause major confusion, a proposal for conservation of *R. sulcatus* will be submitted.

Samenvatting – Aan de bramen die beschreven zijn in de achttiende eeuw is door latere onderzoekers weinig aandacht besteed. Een van deze publicaties betreft een tweetal soorten die beschreven zijn door F.W. Schmidt in 1790, *Rubus fragaria* en *R. pseudo-idaeus*. Bij de beschrijvingen zijn tekeningen gevoegd. De tekening en beschrijving van *R. fragaria* maken duidelijk dat deze identiek is met *R. saxatilis* L. De verschillen die Schmidt noemt, komen in het hele areaal van *R. saxatilis* voor en zijn niet anders dan vormen van zonnige en droge standplaatsen.

Van *R. pseudo-idaeus* ligt er een exemplaar in PRC. Dit is kennelijk gebruikt voor de tekening. Het heeft dezelfde vorm, alleen in spiegelbeeld omdat het blijkbaar andersom is gemonteerd op het vel. Hoewel het alleen een bloeiwijze betreft, is duidelijk dat het om een exemplaar van *R. sulcatus* Vest gaat: de groene kelken, kromme stekels, grote bloemen en lange meeldraden zijn eenduidig. *Rubus pseudo-idaeus* F.W. Schmidt is dus een vroeger synoniem van *R. sulcatus* Vest en het zou volgens de regels de correcte naam voor het taxon zijn. Omdat de naam *R. sulcatus* sinds lang in gebruik is en de nieuwe naam grote verwarring zou veroorzaken met *R. pseudo-idaeus* (Weihe) Lej. & Court. (= *R. idaeoides* Ruthe), een naam die langdurig gebruikt is voor de hybride van *R. caesius* L. en *R. idaeus* L., zal een voorstel voor conservering van *R. sulcatus* worden ingediend. Het is wenselijk deze naam in elk geval te behouden tot daarover een beslissing is genomen.

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INTRODUCTION

As early as 1790, F.W. Schmidt published two species of *Rubus* (Schmidt 1790). Until now, this publication has received very little attention. In fact, apart from a few exceptions, only the *Rubus* taxa published after 1800 have received due attention by later botanologists. Consequently, the discovery of earlier publications may have a significant impact on nomenclature, unless later synonyms are conserved. In view of this, it is necessary to investigate the identity of earlier published taxa

first of all, and subsequently to consider whether conservation of the names is desirable.

MATERIAL AND METHODS

The publication of Schmidt appeared in the *Neue Abhandlungen der königlichen böhmischen Gesellschaft der Wissenschaften*. The *Index Kewensis* refers to the edition of 1791, which is also available on the internet, although without illustrations.

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Fig. 1. The illustrations in Schmidt (1791). The illustration of *Rubus fragaria* F.W. Schmidt on the right has been selected as the lectotype of *Rubus fragaria* (see text).

In his article, Schmidt proposes two new names, *Rubus fragaria* and *Rubus pseudo-idaeus*. He gives rather extensive descriptions of both, which is quite remarkable considering the period of publication. Schmidt added illustrations, which appear at the end of the volume of the *Abhandlungen*. Mr. Jan Stepanek (PRC) kindly sent me a scan of the illustrations in the 1791 edition (Fig. 1). In addition, he found an original specimen of *Rubus pseudo-idaeus*, of which he also sent a scan. With the aid of Mr Rostislav Krušinský (Research Library in Olomouc), I found an earlier edition published in 1790, also with illustrations.

The descriptions, illustrations, and the specimen were analyzed, and their identity was compared to other species. The material was sufficient for selecting lectotypes.

RESULTS

Rubus fragaria F.W. Schmidt

Both the description and the illustration of *Rubus fragaria* represent the taxon that is generally known as *Rubus saxatilis* L. Schmidt mentions several differences, but these can be found in populations of *R. saxatilis* throughout its distribution area; they are considered variation as the result of exposure to direct sunlight and/or dry soil. Therefore, there is no reason to conceive these forms as a species separate from *R. saxatilis*. Only a picture is available for typification. Therefore this is selected as the lectotype:

Rubus fragaria F.W. Schmidt

Lectotype (*hic designatus*): the illustration of this plant by

Schmidt (Fig. 7) in Schmidt 1790 (copy in the Research Library of Olomouc).

The synonymy of *R. fragaria* and *R. saxatilis* has no consequences for the correct name as *R. saxatilis* is the older one.

Rubus pseudo-idaeus F.W. Schmidt

For the evaluation of *R. pseudo-idaeus* F.W. Schmidt, three elements are available: the description, an illustration (Fig. 6 in Schmidt 1790, see Fig. 1 in this article), and a specimen (Fig. 2). As usual in the genus *Rubus* subg. *Rubus*, a description is not sufficient for identification, though it is often helpful to exclude taxa. The illustration of *R. pseudo-idaeus* is very stylized and therefore it does not offer further information. The specimen consists of a floricanne only, as was usual at the time before the publication of the great monograph on *Rubus* by Weihe & Nees (1822–1827). Obviously, the illustration was drawn after this inflorescence: it has the same shape and curves, though mirrored as the plant is fixed on the sheet reversely. Although the specimen consists of a floricanne only, it is sufficient for identification. It belongs to the subsection *Rubus*, and the large flowers, the scattered curved prickles, as well as the long filaments clearly indicate that it is a specimen of what is currently known as *Rubus sulcatus* Vest (1821: 162). The implications of this identification will be discussed below.

Presl added another name to the label, but this name has never been published and is just an herbarium name. It is not clear why Presl added it, maybe he just considered '*pseudo-idaeus*' an inept epitheton because the taxon has little in common with *R. idaeus* L., except for the erect stems.



Fig. 2. The specimen of *Rubus pseudo-idaeus* F.W. Schmidt with its illustration from Schmidt (1791). This specimen has been selected as the lectotype of *R. pseudo-idaeus* (see text).

For lectotypification, the specimen has preference to the illustration. So, as lectotype, the specimen in PRC has been chosen:

Rubus pseudo-idaeus F.W. Schmidt

Lectotype (hic designatus): 'R. schmidtianus Presl/R. pseudo-idaeus Schmidt.fl.boh./In sepibus ad Moldavam superiorem', in PRC.

DISCUSSION

The name *Rubus sulcatus* has been in use for more than a hundred years, and most authors of monographs on *Rubus* apply the latter name to the species discussed here (e.g. Focke 1877,1902–3; Sudre 1908–1913; Rogers 1900; Beijerinck 1956; Watson 1958; Weber 1985, 1995; Edees & Newton 1988; Kurtto et al. 2010). This is also the name under which it is inserted in all main herbaria. *Rubus pseudo-idaeus* is the older name though, and because it is validly published, it has priority over *R. sulcatus*. Considering the long-standing acceptance of the name *Rubus sulcatus*, change of the name will have major effects on the stability of *Rubus*-nomenclature. This is even more the case, since the epitheton *pseudo-idaeus* has been used for other taxa as well: *R. pseudo-idaeus* (Weihe) Lej. & Court. (= *R. idaeoides* Ruthe) and *R. pseudo-idaeus* P.J. Müll. (= *R. nessensis* Hall, cf. Beek et al. 2017: 32–33). The epithet *pseudo-idaeus* has been used for *R. idaeoides*, the hybrid of *R. caesius* L. and *R. idaeus* L., by many authors and consequently, application of the epitheton to another species will cause much confusion. Therefore, I will submit a proposal to conserve *Rubus sulcatus* Vest, and I propose to keep to this name until the International Botanical Congress has reached a final decision.

CONCLUSION

The names *Rubus fragaria* and *R. pseudo-idaeus* are well defined by the descriptions and figures published by Schmidt, and Schmidt's specimen. *Rubus fragaria* is identical to *R. saxatilis* L., and a later synonym.

Rubus pseudo-idaeus is an earlier synonym of *R. sulcatus* Vest, but because application of this name will cause confusion, a proposal for conservation will be submitted.

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